

Claims

1. An electrical socket adapter (100) for selectively providing electrical pins and insertion holes in different configurations, the adapter comprising:

a casing with openings (2) in a front side (87) of the casing and

at least one pin holder (3) being removably placed in the casing, wherein the pin holder comprises

electrical pins being extendable through corresponding openings in the casing to protrude from the casing,

characterized in that

at least one electrical pin being hinged on the pin holder (3) to be selectively extractable from the pin holder, wherein

in an operative position, the electrical pin protrudes from a front side (13) the pin holder, and

in a rest position, the electrical pin is at least partially retracted in the pin holder.

2. The adapter of claim 1, wherein at least one electrical pin is hinged by a ball-and-socket joint.
3. The adapter of claim 2, wherein the electrical pin has a mounting end (94) with a bore hole (25) engaging with a ball being provided between the bore hole and a hemispheric socket (17) of the pin holder (3) to allow a pivotal movement of the electrical pin from at least the rest position to the operative position and vice versa.

4. The adapter of claim 2, wherein the electrical pin has a spherical mounting end (38) engaging with a hemispherical socket (19) of the pin holder (3) to allow a pivotal movement of the electrical pin at least from the rest position to the operative position and vice versa and/or to allow rotating movement of the electrical pin around an axis parallel to its longitudinal axis.
5. The adapter of claim 1, wherein the at least one electrical pin is hinged on a shaft (39) to allow a pivotal movement of the electrical pin perpendicular to a longitudinal axis of the shaft.
6. The adapter of claim 1, wherein the electrical pin has a mounting end (27, 30) with a bore hole (28, 31) through which the shaft (39) is extended.
7. The adapter of claim 5, wherein the electrical pin has a mounting end with a springy arm (34) provided to clutch the shaft (39) in the rest position of the electrical pin and to clutch a spline at the front side (13) of the pin holder (3).
8. The adapter of at least one of the preceding claims, wherein the at least one pin holder (3) comprises at least one ground pin holder (3) and at least one phase pin holder (42).
9. The adapter of claim 8, wherein one ground pin holder (3) is sandwiched by two phase pin holders (42), and wherein the ground pin holder is electrically insulated from the phase pin holders.
10. The adapter of at least one of the claims 8 or 9, wherein the ground pin holder (3) has a plurality of ground pins (4, 5, 6, 7, 8) and/or the phase pin holder (42) has a plurality of phase pins (45, 46, 47, 48, 49, 50).
11. The adapter of at least one of the preceding claims, wherein the adapter further comprises a pin insertion tool (71, 78) comprising at least two metal cheeks (72, 73; 79, 80) with corresponding opposite recesses wherein the metal cheeks are connected by at least one spring (75, 81) bringing the corresponding recesses together forming pin insertion holes (114).

12. The adapter of at least one of the preceding claims, wherein the casing comprises a first hollow shell (1) and a second hollow shell (91), each being of an insulating material wherein the first hollow shell being formed to house the at least one pin holder (3) and the second hollow shell being formed to house at least one pin insertion tool (71, 78) and wherein the shells are provided to be assembled such that an electrical connection between the pin holder and the pin insertion tool is formed, and to be disassembled such that the electrical connection is disconnected.
13. The adapter of at least one of the preceding claims, wherein a fuse (112) is placed between the at least one pin holder (3) and at least one pin insertion tool (71, 78) when an electrical connection between the pin holders and the pin insertion tool is formed.
14. The adapter of at least one of the preceding claims wherein the casing comprises a plug guide (93) being slideable on a second hollow shell (91) formed to house at least one pin insertion tool (71, 78) to provide reciprocating movement of the plug guide relative to the second hollow shell along a longitudinal axis of the second hollow shell.